T.C. Memo. 2000-323

UNITED STATES TAX COURT

INGRAM INDUSTRIES, INC. & SUBSIDIARIES, Petitioners v. COMMISSIONER OF INTERNAL REVENUE, Respondent

Docket No. 14175-98. Filed October 18, 2000.

N. Jerold Cohen, J.D. Fleming, Jr., Walter T. Henderson, Jr., Matthew J. Gries, and Walter H. Wingfield, for petitioners.

Bonnie L. Cameron and Vallie C. Brooks, for respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

GERBER, Judge: Respondent determined income tax deficiencies for petitioners' 1992, 1993, and 1994 tax years in the amounts of $1,315,659, $530,477, and $614,122, respectively. Respondent also determined increased interest for each year under

section 6621(c).[1] After agreements of the parties, the question we consider is whether the cost of the work performed on petitioners' towboat engines constituted a currently deductible expense or whether it is to be capitalized.

FINDINGS OF FACT[2]

A. Background

During the taxable years 1992, 1993, and 1994, petitioners were members of an affiliated group of corporations of which Ingram Industries, Inc. (Ingram) was the common parent. Ingram maintained its principal offices in Nashville, Tennessee, on the date the petition was filed in this case. During the years in issue, petitioners were a closely held, diversified group of corporations engaged principally in the wholesale marketing and distribution of microcomputer software and hardware; books and prerecorded video cassettes; inland barge transportation services; energy-related manufacturing, production, and marketing; and insurance. The barge transportation service was conducted by three wholly owned subsidiaries of Ingram--Ingram Barge Co., Inc., Ingram Towing Co., Inc., and Great River Marine Service, Inc.

---

[1] All section references are to the Internal Revenue Code in effect for the years under consideration, and all rule references are to the Tax Court Rules of Practice and Procedure, unless otherwise indicated.

[2] The parties' stipulation of facts and the exhibits are incorporated by this reference.

Petitioners' barge transportation business involves towing a variety of commodities and materials on the Ohio-Mississippi inland waterway system. The types of cargo transported by petitioners for third parties varied considerably, and included agricultural commodities, minerals (including coal and rocks), and other types of cargo. Petitioners owned and operated a fleet of 55, 64, and 60 towboats at the end of 1992, 1993, and 1994, respectively. Petitioners also operated leased towboats, numbering 11, 5, and 5 as of the end of 1992, 1993, and 1994, respectively. Thus, petitioners operated a total of 66, 69, and 65 towboats during 1992, 1993, and 1994, respectively. Petitioners normally purchased used towboats and occasionally purchased new towboats.

The towboats ranged in size from 50 to 200 feet in length, in age from 7 to 37 years, and were powered by engines with capacities ranging in horsepower from 800 to 9,180. Petitioners' towboats were built by several different manufacturers, had varying "gross official tonnage" ratings, and possessed different makes and models of engines.

The parties have specified two towboats--the R. Clayton McWhorter and the Michael J. Grainger (formerly the Steel Courier)--to serve as representative towboats for purposes of this case. The representative towboats measure from 140 to 168 feet long, 40 to 42 feet wide, and 40 feet high with gross tonnage ranging from 536 tons to 710 tons. Normally,

petitioners' towboats will push between 15 and 40 cargo-laden barges with an average of 1,500 tons of cargo. For purposes of comparison, a semitrailer truck holds about 26 tons of cargo, so a barge carries the equivalent of 58 semitrailer loads of cargo. During the taxable years in issue, a new towboat comparable to the representative vessels cost approximately $6.25 million and a used vessel cost approximately $2.2 to $2.3 million.

B. Towboat Configuration, Maintenance, and Valuation

The principal areas of a towboat are: The wheelhouse, the upper deckhouse, the main deck, the upper engine room, the deck stores area, the steering room, and three areas of the hull--the fuel and ballast tanks, the main engine room, and the shaft alley. A towboat is a very large, integrated item of machinery comprised of a variety of components and systems, of which the principal part is the propulsion system or engines and drive train.

There are three basic groups of operational systems on an inland river towboat: Those that perform the primary functions of floating, maneuvering, and moving up and down the river (e.g., the engines, gears, clutches, steering systems, tailshafts and propellers); those that support the primary systems (e.g., the fuel system, the bilge system, the fire system, hydraulic systems, ventilation systems, electrically powered auxiliary systems, environmental systems, and others); and those that support the crew and personnel operating the towboat (e.g., the

water, sewage, electrical, etc.). These systems must be compatible with each other for a towboat to perform its intended function.

A towboat's propulsion system consists of the main engines, reduction gears, tailshafts, and propellers. The main engines power reduction gears, which turn the tailshafts and the propellers and propel the towboat forward or backward. The reduction gears (transmission system) are each attached to a solid steel tailshaft (about 45 feet in length), which is attached to a propeller. Most towboats in petitioners' fleet have two propellers, measuring from 4 to 10 feet in diameter, located at the rear of the towboat outside the hull. Each tailshaft system possesses a set of three steering type rudders for navigating the towboat.

Towboat mechanical systems require recurring inspection and maintenance to attain their expected useful life. The principal systems that are inspected and maintained on a recurring and routine basis include: The reduction gears, the clutches, the air filters, the main engines, the steering systems (including the rudders), the shafting system (including the bearings and propellers), the fuel centrifuge, the hull (both interior and exterior), the pumps, the air compressors, the air conditioning, the electrical systems, the search lights, the sewage systems,

the capstans, the barge connector winches, the communications equipment, and the equipment in the galley.

Appraisers of towboats rely upon asking or selling prices of comparable vessels to arrive at estimated fair market value. Appraisers do not necessarily inspect a towboat's condition. When a towboat's condition is inspected, the appraiser generally performs a visual inspection or a walk-through of the towboat being appraised to determine its general, overall condition. At that time, a visual inspection of the exterior of its main engines may be performed as the towboat is being inspected and maintenance records for the towboat may be requested, but a detailed inspection of the main engines is not performed. A potential towboat buyer is interested in the vessel's towing capacity, age, condition, and maintenance, all of which would have an effect on the price.

Towboats are generally classified as being in poor, fair, good or excellent condition based on either a survey or a visual inspection. As long as a towboat's engines are operating and are said to have been well maintained, no further examination or inspection of a towboat's engines is performed as part of a typical valuation. Towboats are valued as a single asset and separate values are not assigned to the various components. Likewise, petitioners do not allocate the purchase or selling price of a towboat among its various components.

C. Towboat Engines and Petitioners' Maintenance Procedures

Most of the towboats in petitioners' fleet are equipped with two turbocharged, "V-type," two-cycle, diesel-powered engines. During the years in issue, between two-thirds and three-quarters of the towboats in petitioners' fleet possessed similar engines to the representative boats' engines.[3] The horsepower produced by two engines ranges from 5,000 to 5,600 horsepower, depending on the rotations per minute at which the engines are set to operate. Assuming proper maintenance, towboat's engines can continue operating safely, efficiently and profitably as part of a towboat's main propulsion system for up to 40 years.

The procedures in controversy involve petitioners' cleaning and inspecting of engines to determine which of their parts are within acceptable operating tolerances and can be reused and which (if any) of these parts need to be reconditioned back to acceptable operating tolerances or replaced with appropriate replacements.[4]

---

[3] For purposes of this case, the parties have agreed that the Electro-motive Division (EMD) No. 16-645-E5 engine, manufactured by General Motors, will be the representative engine.

[4] As part of the controversy over whether the expenditures involved are currently deductible or must be capitalized, respondent refers to these procedures as an "engine overhaul" and petitioners refer to these procedures as "center-section engine maintenance".

The work performed by petitioners is included in the engine manufacturer's maintenance manuals. These procedures are routine and recurring and necessary to maintain a towboat in good operating condition. Petitioners' towboats were in good working order and operating condition when they were brought in to have the above procedures performed.

Petitioners perform these procedures after a towboat has operated for 25,000 to 35,000 hours. A representative towboat is used about 8,000 hours per year so that the procedures are performed on a towboat every 3 to 4 years. Petitioners select a towboat for these procedures by utilizing a series of criteria. First, they use a 25,000-hour guideline to screen towboats to determine whether it is time to perform the procedures. Next, for towboats that have accrued 25,000 to 30,000 hours of use since the last procedure, wear on a piston's compression ring is measured for each engine and the towboat's oil consumption patterns are studied. Petitioners do not remove a towboat engine's power assemblies to measure the ring wear for each of the pistons in the engine. These measurements are taken by removing the "air box handhole covers", positioning the pistons so that they are accessible from the air box handholes, and using a "feeler gauge" to take these measurements. If the ring wear indicates that procedures involved are appropriate or if a towboat appears to be consuming more oil than normal, the

procedures are performed on the towboat when the opportunity arises based on seasonality and business needs.

Normally a towboat is out of service for 10 to 12 calendar days for the procedure so the work is performed during “off peak” seasons--winter and early spring. Normally, 8 to 10 individuals (mostly off-duty crew members) perform the procedures. The crew members of a tugboat generally include a captain, pilot, chief engineer, cook, mate and four deck-hands. The chief engineer is responsible for the propulsion system and other mechanical items and reports to the captain and to a shore-based manager of engineering. One may become a chief engineer by on-the-job experience or by formal training. Employees with 1 year experience may become apprentice engineers assigned to a chief engineer for training.

The procedures focus on the engine’s cylinder assemblies, which are commonly referred to as the engine’s “power packs”. Thus, a 16-cylinder engine would contain 16 power packs. The power packs are removed from a towboat’s engines and disassembled as part of this procedure so that their parts can be cleaned and inspected. The process of accessing and removing a power pack is detailed and labor intensive. A power pack weighs between 363 and 408 pounds and consists of a cylinder head, four exhaust valves, a cylinder liner, a piston and compression rings, a piston pin, a bearing insert, a piston carrier, a thrust washer,

a piston snap ring, a connecting rod, and a basket or fork rod assemblies. With the exception of pistons, rings, and fuel injectors, the items comprising a power pack are reused by petitioners to the extent possible. For example, cylinder heads, piston pins, piston carriers, connecting rods, and cylinder liners are reused where possible in connection with the procedures. Sometimes, parts other than pistons, rings, and fuel injectors may need work performed in order to keep them within acceptable operating tolerances.

Pistons and rings, which consist of cast metal pieces weighing approximately 40 pounds, are ordinarily replaced with new pistons and rings, at a cost of materials of about $300 per piston during the years in issue. For economic and safety reasons, petitioners do not reuse or attempt to recondition worn pistons as part of these procedures.

Cylinder liners are reused once by petitioners, but normally are not reused a second time due to wear caused by the friction between a piston and the interior surface of the cylinder liner. After an initial use, cylinder liners are cleaned, visually inspected for damage, and checked for acceptable dimensional tolerances at various measurement points along the inside of the liner. If a cylinder liner is not damaged and is qualified for further use, it is honed and cleaned for reuse. The cost of inspecting a used liner to determine whether it is within

acceptable operating tolerances (as well as honing and cleaning it) was about $100 during the years in issue. When a cylinder liner needs to be replaced due to excessive wear, petitioners use either new or used liners which are within acceptable operating tolerances and which are similar in all material respects to the liners removed from the towboat. During the years in issue, the cost of such a used liner was about $600, and the cost of a new cylinder liner was about $1,200.

In addition to the power packs, rocker arm assemblies, valve bridges, fuel injectors, oil pumps, and water pumps are also removed, disassembled, cleaned and inspected as part of the procedures. As with power packs, to the extent possible, parts within these assemblies and pumps are reused unless damage is detected. The only parts of the rocker arm assemblies that are always replaced with either new or used parts are the rocker arm rollers and bushings (costing approximately $13 during the years in issue). In a similar manner to rocker arm assemblies, valve bridges are disassembled, cleaned, and inspected and reused if no irreparable damage is detected. The valve bridge parts that are routinely replaced are the valve bridge lash adjusters (costing approximately $8 per valve bridge during the years in issue). Fuel injectors are normally exchanged by petitioners with outside contractors for reconditioned injectors at a cost of about $92 per injector.

In connection with the maintenance, various bushings, bearings, washers, retainers, gaskets and seals contained within the oil and water pumps are also replaced. Many of the parts within these pumps--the gears, brackets, couplings, bolts, nuts, keys, housings, dowels, sleeves, shafts, impellers, springs, spacer plates, slingers, plugs and rings--are reused, assuming they are within acceptable operating tolerances. Other small parts, such as gaskets, seals and filters, are replaced as an incidental part of the disassembly and reassembly processes. The lower liner bore inserts--pieces of cast metal that rest between the bottom of each cylinder liner and the crankcase so as to provide a seal between the crankcase and the towboat engine’s air box and to enable air to be retained in the air box while the towboat’s engine is in operation--are replaced at a cost of $40 each.

Certain moving and nonmoving parts are cleaned and visually inspected for obvious operational problems as part of the maintenance, but unless problems are identified during the inspection process, no work is performed on such parts, including: The engine governors, the engine turbochargers, the engine crankcase, oil pan, oil and fuel lines, the lower main bearings, the piston cooling oil pipes, the cylinder test valves, and the water inlet tubes.

Several parts of a towboat's engines, such as the exhaust systems, mufflers and ductwork attached to the towboat's engines, the piping on the front and aft ends of the towboat's engines, and the towboat engines' camshafts (including the camshaft gear trains), crankshafts, and the drive gears (including the gear boxes) attached to the engines are not included in the above-described periodic procedures. This equipment is not inspected as part of the procedures unless a specific operational problem has been previously identified.

No part of a towboat's main propulsion system other than its main engines is affected as part of the above-described procedures. In addition, none of the equipment located in the wheelhouse, the upper deckhouse, the main deck, the upper engine room, the deck stores area, the steering room, the fuel and ballast areas, and the shaft alley is affected by the procedures. None of the equipment located in the main engine room other than the main engines is affected by the procedures. So for example, the fire pump, the bilge and ballast pump, the deck wash pump, the air compressors and tanks, etc., are not included in the procedures.

The engines under consideration weigh 37,700 pounds and measure almost 16 feet long, 5 feet wide and 9½ feet high. They are designed and constructed so that a power pack can be regularly removed from the engine so that the procedures involved

can be performed. The engines are designed so that much of the wear occurs in replaceable and/or disposable parts.

Generally, a towboat's engines are not removed from the towboat in connection with the procedures involved, and it is not necessary for a towboat to be in dry dock for the procedures to be performed. The operational tolerances used by petitioners in the performance of the maintenance procedures in issue are within the manufacturer's minimum recommended operating tolerances, which are not as stringent as the manufacturer's required dimensional tolerances for new parts.

During the years in issue, the average cost incurred by petitioners for the parts, labor, and supplies required to perform the maintenance procedures in issue on both engines of a representative towboat was $100,000. The cost of two comparable new engines was approximately $1.5 million, and two rebuilt used engines cost approximately $600,000. Approximately 30 percent to 35 percent of the $100,000 cost is for labor, and approximately 65 percent to 70 percent is for new or used parts. The $100,000 cost does not vary based on the age of a towboat or its engines.

Petitioners maintain records of the inspection results for certain of the parts of a towboat's engines that are cleaned and inspected during the maintenance. With respect to the two representative towboats, the relative number of parts covered by

these records that were reused (as compared to being replaced) was as follows:

Item	Total number contained in 2 EMD engines	Number reused	Number replaced	Relative portion of parts reused
Rocker arms	192	192	0	192/192 or 100%
Piston carriers	64	59	5	59/64 or 92.2%
Piston pins	64	54	10	54/64 or 84.4%
Cylinder heads	64	32	32	32/64 or 50%
Connecting rods	64	61	3	61/64 or 95.3%
Cylinder liners	64	59	5	59/64 or 92.2%
Pistons	64	0	64	0/64 or 0%
Total	576	457	119	457/576 = 79.3%

A towboat’s horsepower is not increased, nor is its use or ability changed, as a result of the procedures. The procedures are performed to keep the towboats in good, safe, reliable, and profitable operating condition.

The procedures performed by petitioners are consistent with those performed by a majority of the inland-river towboat operators in the United States. The probable and anticipated useful life of a towboat is not extended as a result of the maintenance procedures in question. A towboat engine would not likely realize its anticipated useful life if the procedures in

question were not performed periodically. If the procedures in question are performed at appropriate intervals, a towboat engine can continue operating safely, efficiently, and profitably for up to 40 years.

The performance of the procedures described above maintains the relative value of a towboat, but it does not increase the value. The value of a towboat declines as it ages even if the procedures are performed. Any increase in the value of a towboat immediately after the performance of the procedures in question would generally be limited to the cost of performing the procedures, or $100,000 for a representative towboat.

D. Petitioners' Procedures vs. Repowering

Occasionally, a towboat owner may desire to replace existing engines with new or rebuilt engines, to standardize the types of engines in a fleet, to increase the towing capacity, or to replace a dysfunctional engine. This process (referred to in the industry as "repowering") involves drydocking the towboat.

Removal or repowering of main engines is a complicated process requiring disconnecting the engines from the water, fuel, air, and exhaust systems. In addition, the exhaust stacks on top of the towboat's main deck must be completely removed, as well as those portions of the decking located underneath each stack and over the main engine room. The engines being removed are disconnected from their mounts and are removed with the aid of a

crane. The engine mounts are either modified or replaced, and the replacement engines (in new or rebuilt condition) are installed. The towboat's air, water, fuel, and exhaust systems are then modified to the extent necessary to accommodate the new or rebuilt engines, and the new or rebuilt engines are connected to these systems of the towboat. The decking and exhaust stacks are reinstalled, and the new or rebuilt engines are operationally tested, thus completing the repowering process. The process of repowering a towboat with new or rebuilt engines takes approximately 3 to 5 months.

The representative engines were no longer being manufactured by General Motors during the years in issue. The costs associated with installing two new or rebuilt Electro-motive Division (EMD) engines in a representative towboat (excluding the costs of the engines themselves and any costs associated with replacing a reduction gear system, a tailshaft, a propeller or other equipment) would have been approximately $200,000 during the years in issue. If modifications or upgrades are required for the reduction gear, tailshafts, propellers, or other equipment in connection with a repowering, the installation costs of a repowering could reach $500,000. In addition, because a repowering takes 3 to 5 months, that results in a loss of use of the vessel for a period of time far in excess of the 10 to 12 days for the procedures performed by petitioners.

An EMD engine is rebuilt (or “completely overhauled”) through a series of steps designed to put the engine in like-new operating condition to the maximum extent possible. When an EMD engine is rebuilt, the rebuilding process is performed by EMD or an EMD-authorized service center. EMD engines in a towboat nearing the end of its useful life (and which has had the procedures involved performed numerous times) or EMD engines which have been removed from towboats due to a catastrophic malfunction are likely candidates for the rebuilding process. The goal of the rebuilding process is to bring each of an engine’s component parts to EMD’s original dimensional specifications for new parts.

The rebuilding process for a towboat engine requires the removal of the engine from the towboat of which it is a part and the removal of all of the moving and nonmoving components from the engine as well. The engine’s crankcase and oil pan are separated, and every part of the engine is carefully cleaned, inspected using intense illumination, machined and treated with special materials to restore the engine to a like-new operating condition. The engine crankcase and oil pan are extensively machined and welded, and numerous dimensional tests and checks are performed to ensure that the engine is returned to a like-new condition through the rebuilding process. In addition, a reconditioned crankshaft and camshaft (with new camshaft bearings

and dowels) normally are installed in the engine during the rebuilding process. The power packs are completely rebuilt with a large number of new parts during the rebuilding process. The oil pumps, water pumps, engine turbochargers, and governors are normally removed and exchanged for rebuilt parts during the rebuilding process. The accessory drive gears, all of the piping on the front and aft ends of the engine, the governor drive gear, and the turbocharger drive gears are removed and normally exchanged for rebuilt parts during the rebuilding process. Normally, a rebuilder of EMD engines warrants its labor for 1 year. Rebuilt parts normally carry a 6-month warranty, and new EMD parts used in the rebuilding process carry a 1-year warranty. During the years in issue, petitioners did not repower any of their towboats.

E. Petitioners' Accounting Practices

Petitioners use an accrual method of accounting for reporting their income, expenses, and results of operations for both financial and tax reporting purposes. For Federal income tax purposes, petitioners depreciate each of their towboats as a single asset under the modified accelerated cost recovery system using the prescribed recovery period of 10 years under the composite 18-year class life. For financial reporting purposes, petitioners depreciate a new or used towboat as a single asset over 35 years. The useful life of a properly maintained towboat

is 40 years. For financial reporting purposes, petitioners accrue the estimated cost of the procedures in issue as the towboats accrue hours of usage, and such estimated costs are reflected as expenses for the periods to which they relate, which are the periods prior to the performance of the maintenance.

To illustrate petitioners' financial accounting treatment of the maintenance costs, if during a particular year a representative towboat incurred 8,000 hours of use and the maintenance procedures were expected to be performed after 25,000 hours of use and were expected to cost $100,000, petitioners would reflect an expense of $32,000 (8,000/25,000 x $100,000) in their consolidated income statement for that year. An additional $32,000 of expense would be reflected in petitioners' income statement for each of the 2 succeeding years (during which an additional 14,000 hours of usage would have accrued), and $4,000 (1,000/25,000 x $100,000) would be reflected in petitioners' income statement for the third succeeding year (during which 1,000 hours of usage would have accrued prior to the performance of the maintenance).

Petitioners use this financial accounting method in an attempt to match the costs incurred for the maintenance procedures in issue with the related revenues. This accounting method, which expenses the costs incurred for the maintenance procedures prior to the performance of the maintenance, is in

accord with generally accepted accounting principles and was verified by petitioners' outside accountants as properly representing petitioners' income for financial reporting purposes.

Petitioners believed that their financial accounting method was not permitted under the Internal Revenue Code for the tax years under consideration. Accordingly, for Federal income tax purposes, petitioners deducted the costs associated with the procedures involved in the taxable year in which they are incurred.

Respondent's determination was to capitalize the costs and depreciate them over the 10-year recovery period beginning with the date the costs are incurred.

OPINION

The issue we consider is whether petitioners' expenditures for the described procedures were expenses deductible under section 162(a) or whether they should have been capitalized under section 263(a). Expenses incurred for regular maintenance to keep property in an ordinarily efficient operating condition are currently deductible. Section 1.162-4, Income Tax Regs., provides:

> The cost of incidental repairs which neither materially add to the value of the property nor appreciably prolong its life, but keep it in an ordinarily efficient operating

> condition, may be deducted as an expense * * *

Similarly, section 1.263(a)-1(b), Income Tax Regs., provides that

> Amounts paid or incurred for incidental repairs and maintenance of property are not capital expenditures * * *

Conversely, section 263 provides that no deduction may be taken for amounts expended for permanent improvements or betterments made to increase the value of property. See also id. The parties have taken refuge in particular nomenclature that supports their position. There is no legal question to be answered here--instead we must decide which party's labeling is supported by the record. Respondent uses the term "overhaul"[5] and petitioners use the terms "routine maintenance".

The parties' positions reduced to a concise statement of facts, are as follows: Petitioners contend that towboats, including the engines, have an expected useful life of 40 years and the procedures performed are routine maintenance to achieve the expected useful life. Respondent contends that a towboat engine has a 25,000- to 35,000-hour useful life (here 3 to 4 years), and it must be completely overhauled after such use.

[5] On brief, respondent does not argue that the procedures performed by petitioners' employees is, by definition, an overhaul, which includes a complete rebuilding of the engine. Instead, respondent argues that the procedures performed are equivalent in scope to an overhaul.

Preliminarily, we consider the parties' disagreement concerning whether a towboat engine should be considered separately from the towboat. Respondent's argument is constructed in a manner that focuses on the engines, which ostensibly provides better comparisons for his arguments by magnifying the cost of the procedures performed through a reduction of the scale of the asset being considered. Petitioners contend that, factually, there is no predicate for treating the engine separately from the towboat. Additionally, petitioners argue that the result would not be changed by solely focusing on the engines. We agree with petitioners that the record does not support a finding that, as a matter of industry practice or otherwise, the engines are purchased or treated separately from the tow boats. To the contrary, the life of a towboat is 40 years, and it is expected that the engines, if properly maintained, will also last 40 years. Towboats are purchased with engines, albeit to the buyer's specifications, that are designed to be maintained without removing them from the boat. There was no showing that towboat owners regularly and periodically over the life of the vessel replaced the engines. Accordingly, we disregard any suggestion by respondent that the

engines, as a matter of fact or law, should be treated separately from the towboats.[6]

The tests for determining whether expenditures are deductible maintenance expenses as opposed to capital expenditures have remained fairly constant for more than 70 years. In 1926, the Board of Tax Appeals explained:

> A repair is an expenditure for the purpose of keeping the property in an ordinarily efficient operating condition. It does not add to the value of the property, nor does it appreciably prolong its life. It merely keeps the property in an operating condition over its probable useful life for the uses for which it was acquired. Expenditures for that purpose are distinguishable from those for replacements, alterations, improvements or additions which prolong the life of the property, increase its value, or make it adaptable to a different use. The one is a maintenance charge, while the others are additions to capital investment which should not be applied against current earnings. * * *

Manierre v. Commissioner, 4 B.T.A. 103, 106 (1926).

Those standards have persevered substantially unchanged. In Plainfield-Union Water Co. v. Commissioner, 39 T.C. 333, 337 (1962), the tests or standard was expressed as follows:

> An expenditure which returns property to the state it was in before the situation prompting the expenditure arose, and which

[6] Respondent referenced a few opinions in which related assets were treated separately in connection with the question of expenses versus capital expenditures. In each instance, the assets were separable and so treated by the owner/user. Accordingly, the referenced cases are distinguishable.

> does not make the relevant property more valuable, more useful, or longer-lived, is usually deemed a deductible repair. A capital expenditure is generally considered to be a more permanent increment in the longevity, utility, or worth of the property.

Accordingly, in determining whether an expenditure should be capitalized, we consider whether it has: (1) Adapted the property for a new or different use, (2) appreciably prolonged the life of the property, or (3) materially added to the value of the property. Initially, there is no question that the procedures performed did not adapt the engine for a new or different use.

The question of whether the procedures appreciably prolonged the life of the engine is more thought provoking. Obviously, if the procedures performed by petitioners were not performed, the expected useful engine life would be approximately 4 or 5 years. Based on the record, the procedures are performed after about 25,000 to 30,000 hours of operation. In that regard, petitioners' towboats are operated about 8,000 hours per year. With that much use, the maintenance procedures must be performed every 3 or 4 years. Considering that there are 8,760 hours in most years (365 x 24), 8,000 hours of use translates into the towboat and engines' being operated about 91 percent of the time, or almost 22 hours of each day of a 365-day year.

From respondent's perspective, the engines wear out every 3 or 4 years and must be completely overhauled. From petitioners' perspective, the towboat and its engines, if properly maintained, have an expected useful life of 40 years. Petitioners, however, perform the procedures every 3 to 4 years. So it could be argued that each time the procedure is performed it extends an engine's life 3 to 4 years and permits the engine to achieve its 40-year life expectancy. It cannot be said, however, that the procedures performed are the equivalent of rebuilding or overhauling an engine, either in terms of time consumed, the extent of the procedures, the amount of parts replaced, or cost of the work performed. Accordingly, it could also be argued that the engine's life is 40 years, and it must be maintained at 3- to 4-year intervals.

Petitioners make a distinction between a disabled engine that must be replaced and/or overhauled and petitioners' procedures which, for the most part, involve replacement or repair only of items that show wear. Petitioners' approach is more in the nature of preventative maintenance, and they automatically replace only a limited number of items, such as pistons. The majority of the engine parts are inspected and cleaned and only replaced or repaired if necessary. Respondent emphasizes that petitioners inspect more than 90 percent of the parts, which, in respondent's view, is tantamount to performing

an overhaul. These procedures in the case of the representative engines, however, resulted in the replacement of 119 of the 576 major parts of the engines. In other words, approximately 79 percent of the parts are reused and approximately 21 percent replaced. For an engine overhaul, substantially more parts are automatically replaced to totally recondition the engine.

Respondent, however, seeks to have us focus on the fact that the towboat engines are taken apart by 8 to 10 of petitioners' employees and that it takes 10 to 12 days to inspect, handle, clean, and/or replace the various engine parts. To respondent, there is no difference between these procedures and an overhaul. Petitioners, by way of illustration, however, point out that they expend $100,000 (for parts and labor) to maintain a towboat, which if purchased new would have cost $6.25 million during the years in issue. That represents a 1.6-percent expenditure to keep the most significant portion of the towboat operating properly.[7] If we were to assume that a new automobile cost

[7] Petitioners chose to use the cost of a new towboat to make the illustration more emphatic. However, if the cost of a used towboat (approximately $2 million) is used, the cost-to-maintenance ratio would be 5 percent ($100,000 divided by $2 million). If the cost of new engines is used ($1.5 million) the ratio would increase to almost 7 percent ($100,000 divided by $1.5 million). Finally, if the cost of a completely overhauled or rebuilt engines is used ($600,000), the ratio would be almost 17 percent ($100,000 divided by $600,000). Ultimately, the difference between the cost of the procedures to maintain ($100,000) and the cost of completely overhauled or rebuilt engines($600,000) is more telling. Plus, there is also the extra

(continued...)

$30,000, then a 1.6-percent maintenance cost would equal $480. Relatively and comparably, the $100,000 and $480 appear, at least in size, to represent an incidental as opposed to a major repair, improvement, or procedure.[8]

Petitioners also emphasize that the maintenance procedures take from 10 to 12 days and that the procedures are performed during off-peak season, whereas complete overhauls are performed by third parties and the engine is removed from the towboat during a 3- to 5- month process. Accordingly, there is a substantial time differential between petitioners' procedures and a complete overhaul. By comparison, up to 5 months of towboat revenue could be lost during an overhaul.

We think it is significant that petitioners perform the procedures at a time when the engines are completely serviceable and the purpose of performing the procedures is to keep the towboat engines in good operating condition. This is in contrast to the cases relied on by respondent where the property was not serviceable and had to be replaced or completely rebuilt or overhauled. For example, respondent relies on Ruane v.

---

[7](...continued)
cost of removal, installation, and refitting a new or rebuilt engine.

[8] In that regard, towboats are operated about 8,000 hours per year, whereas an automobile, for example, would generally be operated for substantially fewer hours annually. Accordingly, the cost of normal maintenance for a towboat should be comparatively larger in a shorter period of time.

Commissioner, T.C. Memo. 1958-175, where the question was whether the cost of work performed on the taxpayer's coke ovens was deductible or whether it had to be capitalized. In that case, oven linings became unserviceable, and the taxpayer had to replace them periodically. In holding that the cost of replacing the oven linings had to be capitalized, it was found that the ovens had a normal life expectancy of 3 to 4 years because after that time, they "fell into such a state of deterioration" that they had to be shut down and "substantially rebuilt". Id. The Court then held that the substantial rebuilding of the ovens prolonged their useful lives. The other cases relied on by respondent are similar to Ruane v. Commissioner, supra. Generally, in the cases relied on by respondent, the taxpayer allowed the asset to completely deteriorate and then rebuilt it resulting in a clearly defined new useful life.

Here petitioners' towboats (including the engines) do not completely deteriorate and do not have to be substantially rebuilt. Petitioners' towboats are in operating condition and are operating when they are brought in to have the maintenance performed, and all of the significant components and systems that comprise the towboats (including their engines) are in good working order immediately prior to the performance of the maintenance. Petitioners do not allow their equipment to become unserviceable before performing the described procedures.

Petitioners purchase a towboat, including the engines, with the expectation that its useful life is 40 years. To achieve the expected useful life, petitioners regularly maintain the engines. They replace a relatively limited number of parts on a regular basis and inspect the vast majority of remaining parts, replacing only those that are worn beyond a certain tolerance.

Petitioners also point out that two new engines would cost $1.5 million plus installation of approximately $200,000. If petitioners had replaced the two engines with overhauled or rebuilt engines, the cost would have been about $800,000. By comparison, the $100,000 maintenance is incidental when compared to the cost of an overhauled or rebuilt engine. If respondent's perspective in this case were correct, the cost of a rebuilt engine would be more similar in cost to the maintenance performed by petitioners' employees.

Accordingly, the procedures performed here are routine maintenance that does not extend the expected 40-year life of the boat or engine. The procedures constituted preventative maintenance that permitted the engine to operate as intended by the manufacturer and the owner. Although it could be said that such procedures extended the life of the engine (in the sense that failure to perform them would have resulted in engine default) the life of the engine was not appreciably prolonged by these procedures. Considered in a vacuum, a $100,000 cost for

maintaining two pieces of machinery appears to be a large sum. But in the context of a towboat and/or its engines, the amount is more representative of an incidental expense. Finally, in this case the engines are obviously being maintained in good operating condition and are not being improved in such a manner as to extend the life expectancy.[9]

We now consider whether petitioners' maintenance procedures materially added to the value of the towboat. Petitioners admit that there must be some value connected with the performance of the procedures in question. Petitioners contend that the maintenance keeps the engines (towboat) in efficient operating condition, but it does not adapt the engines to a new or different use, does not extend their useful life (which is equivalent to the life of the towboat of which they are a part), and does not materially increase their value.

Respondent contends that the value is materially increased and that the procedures performed are not merely incidental. Other than labeling the value as material and noting that petitioners expend $100,000 per towboat to perform the procedures, respondent does not attach any particular value increase to the performance of the procedures. As more fully

[9] It would be without reason to accept the premise that an owner of a $6.5-million piece of equipment would intentionally fail to maintain the mechanical portion and incur a cost six times greater than the cost of maintenance to purchase rebuilt equipment every 3 or 4 years.

discussed above, we do not find that the $100,000 expended was material relative to the overall value of the towboat or the engine, even if it were appropriate to consider the engine separately.

More importantly, it is not clear that a buyer would pay $100,000 more for a towboat that had just been maintained, as opposed to one that needed maintenance. Certainly, a towboat buyer would be more interested in a well-maintained towboat and, in particular, one that recently had maintenance. But, on this record, there is no accurate or reliable way to measure the increment in value that could be attributed to how recently maintenance had been performed. Even if $100,000 was the increment in value, we have found that amount not to be material in the factual context of this case.

Finally, the parties address the role, if any, that INDOPCO, Inc. v. Commissioner, 503 U.S. 79 (1992) (INDOPCO) should play in our consideration of this issue. Respondent references INDOPCO along with section 1.162-4, Income Tax Regs., for the following position:

> In order to be entitled to a deduction for the engine overhaul, petitioners must clearly show that it is an incidental repair that does not appreciably prolong the property's useful life, but keeps it in an ordinarily efficient operating condition. * * *

Accordingly, respondent's use of INDOPCO does not vary from the standards set forth earlier in this opinion. There is no unique aspect or requirement in the Supreme Court's INDOPCO opinion that pertains specifically to the issue we consider. Likewise, petitioners confirm that the INDOPCO holding did nothing to change the standards established by the pre-INDOPCO body of law that deals with repair and maintenance expenses. Accordingly, it is not necessary to analyze further the INDOPCO holding in the context of this case.

Accordingly, we hold that petitioners are entitled to deduct the cost of maintaining their towboat engines under section 162.[10]

To reflect the foregoing and to give effect to the agreements of the parties,

Decision will be entered under Rule 155.

[10] Respondent, on brief, stated that increased interest under sec. 6621(c) was in dispute, but neither party presented any argument or findings addressing that item. In that regard, our holding that petitioners are entitled to deduct the costs in question would obviate the need to consider sec. 6621(c) with respect to that adjustment. See also Pen Coal Corp. v. Commissioner, 107 T.C. 249 (1996).